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OPTIMIZATION OF SKILL RETENTION IN THE U S ARMY THROUGH 1/1

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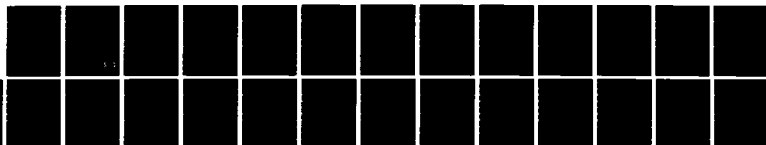
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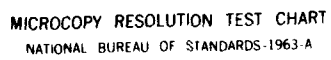
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ANNEX

OPTIMIZATION OF SKILL RETENTION IN THE U.S. ARMY
THROUGH INITIAL TRAINING ANALYSIS AND DESIGN:

PROTOTYPE SKILL SUSTAINMENT GUIDE

Project Director:
Kay E. Rigg

May 1983

McFann, Gray & Associates, Inc.
2100 Garden Road, Suite J
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report summarizes the results of a test of the capability of MGA software to estimate training and retention outcomes from a small sample of first trial data. There were three test objectives: 1) test the ability of STAR [®] software to estimate soldier end-of-course scores; 2) to test the ability of STAR [®] to forecast skill decay over time; and, 3) to determine the frequency of training required to sustain skill. (continued)		

20. Continued

The Army Training Board (ATB) and the Infantry School (USAIS) selected 114 CMF tasks for this test. All training and data collection were conducted by officers and NCOs from TRADOC and USAIS. Data analysis was performed by MGA staff members.

Sixty-eight soldiers were selected at random from two new manning companies to take part in this test. Participants received standard POI task information and demonstration, and were then tested on the task. First trial data were recorded by the task force and transmitted to MGA for analysis.

MGA produced the following estimates based on this first trial data: training criterion; the minimum End-of-Course scores; the retention interval in weeks for a decay to 60% correct performance.

The soldiers were trained to criterion, returned to the POI, and then retested on the tasks the day before POI refresher training.

ATB selected 40 tasks for in-unit testing. Eighteen tasks were tested at Fort Campbell after a nineteen week interval and twenty-two tasks were tested at Fort Lewis after a twenty-one week interval.

The major findings of this operational test were:

- The average MGA end-of-course estimates were within two percentage points of the average observed end-of-course scores for tasks trained to criterion.
- MGA software was calibrated to provide retention estimates at two levels of confidence. At the 99% level of confidence it was expected that 99% of the observed task performance data would exceed MGA estimates. Thirty-eight out of forty, or 95% of the tasks met this expectation. At the 80% confidence level it was expected that 80% of the observed task performance data would exceed the MGA estimates. Thirty-five out of forty, or 87.5% of the tasks met this expectation.
- For these first trial data, MGA software predicts that training to criterion one GO should be sufficient exposure to sustain skill. Ninety-one percent (91%) of the Fort Lewis soldiers scored two consecutive perfect trials after meeting criterion one GO. These soldiers took 72% fewer sustainment training trials to reach criterion that they had required to learn the same tasks in the training base.



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ANNEX

**OPTIMIZATION OF SKILL RETENTION IN THE U.S. ARMY
THROUGH INITIAL TRAINING ANALYSIS AND DESIGN:**

PROTOTYPE SKILL SUSTAINMENT GUIDE

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The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

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PURPOSE

The purpose of this training guide is to provide Army trainers with guidance on sustainment of individual skills. It contains information on many common tasks and Career Management Field CMF (11) tasks that were collected during a study on skill decay. The guide is designed primarily for use by trainers and training managers at the platoon and company level. It can also be used by unit commanders as a source of reference information. The remainder of CMF 11 tasks will be completed and fielded in the near future.

INTRODUCTION

The peacetime mission of Army units is to maintain combat readiness. Successful performance in combat is a result of proficiency in many areas. The unit commander's job is to maintain an adequate balance in all areas. This guide covers an important part of one of those areas: the sustainment of skills in individual tasks to support the collective training mission.

HOW TO USE THIS GUIDE

The guide is organized in two sections. The first section lists all 114 tasks in six major groups that are labeled Sustainment Clusters A through F (see Tabs A through F). All the tasks that are grouped in a single cluster are forgotten at about the same rate. Therefore, they will need refresher training at about the same time. The tasks within each cluster are organized by activity or weapon system, i.e., First Aid, US Mines, or M72A2 LAW.

The second section lists all tasks by activity or weapon system. That is, all the tasks tested under the activity of First Aid are listed together with their corresponding retraining intervals.

Both sections contain the same information. They give the training manager flexibility in scheduling a training program either by training frequency group or by activity group. It should be noted that the recommended retraining or

sustainment frequencies in this guide are generally quite conservative. The tasks are shown with the frequency of sustainment training necessary to maintain one of three performance levels: 1) 60%, 2) 70%, or 3) 80%. These performance levels represent the soldiers' ability to perform the task correctly, i.e., 70% means the soldiers will be able to get at least 70% of the task steps correct. If a task is recommended to be trained every 3 months to maintain a 70% performance level, the soldiers' proficiency should remain at or above 70% during the entire 3 months. In actuality, the performance level may be at 80% or higher, but it is not expected to fall below the 70% level. If a group of soldiers was tested at the end of the 3-month period, without having had any intervening training, the group's average performance on the task should be 70% or higher. Then, with proper sustainment training, the soldiers regain 100% skill performance and retention decay begins again.

The cost in time and material resources to perform sustainment training has dictated that more accurate predictions of retraining frequencies be made than was originally thought. The ability to make more accurate estimates is being pursued now. Until they are available, the sustainment training figures in this guide can help the training manager by providing worst-case performance decrements that can be used as a reliable guide for planning sustainment training.

The retraining frequencies in this guide provide the trainer the information on how often tasks need retraining. The key to success is the quality of the training when it is performed. Sustainment training of individual tasks is generally done prior to performing it in a collective environment. It is critical that the soldiers be required to perform the task correctly. Once they have demonstrated proficiency on the task, they should be required to perform to standard. Collective training then affords the opportunity to perform the task under simulated battlefield conditions, or increasingly more stringent conditions.

SECTION I

This section is organized by grouping all tasks that are retrained for approximately the same period of time. These groups are labeled Sustainment Cluster A through F. At the top of each task group, there is a heading that represents three arbitrary training strategies (see Figure 1).

80%:	1-2 times/month
70%:	1 time every 3 months
60%:	1 time every 4 months

FIGURE 1: SUSTAINMENT CLUSTER A

It is not the commander's intent to "maintain an 80% performance level," but rather to ensure that soldiers' performance does not drop below this level. To ensure that skill decay does not cause performance to drop below this level, soldiers need to receive sustainment training. This training will bring them back up to 100% performance. The commander selects the sustainment frequency (i.e., the maximum amount of skill decay) for his soldiers which he can "live with" and still achieve his mission.

You will notice that the length of time between retraining or practicing necessary to maintain 80% performance differs for each of the sustainment clusters. That is because the tasks in Sustainment Cluster F are remembered for a longer period of time than those in Sustainment Cluster A. Therefore, they require less retraining to maintain the same level of performance.

This format allows the commander or training manager to structure his training around tasks that need practice at approximately the same time. These tasks could be refresher trained in a round-robin type of setup. The following recommendations may assist in planning what tasks are to be trained:

1. Eliminate all of the tasks that do not apply to your MOS or unit.

2. Identify all of the tasks that are already trained more often than the frequency given for 80% proficiency through normal recurring activities. They will not require the same training as the other tasks, and if time becomes a limiting factor, could be the first dropped from the training plan.

The performance level that soldiers are allowed to fall off to before sustainment training is scheduled is a decision the commander makes based on several factors. These include but are not limited to:

1. Resources available,
2. task importance to mission requirements,
3. command guidance,
4. ARTEP mission training program, and
5. professional considerations.

Example: Your Infantry platoon is planning training to maintain an 80% proficiency level and you are concentrating on Sustainment Cluster B. You have no mortars or TOWs in your platoon, so you can disregard tasks pertaining to them. Your platoon performs operator maintenance on your M16A1 rifles, M203 grenade launchers, and M60 machineguns on an average of once a week. This is more often than the one time every two months required to maintain an 80% performance level. Therefore, you could merely set up a check station to ensure everyone is doing these tasks correctly. Or, if time was a problem, these tasks would be first on your list to delete from the training period. The remaining tasks could then be organized in a round-robin type training system. If ranges were necessary for some tasks, then the training stations could be set up as concurrent training around the range. If a range was not available, you might consider some sort of training aid or simulator. Additionally, you would want to look at tasks in Cluster A, again deleting those that did not pertain to your platoon or those already done more often than the required amount. Some or all of Cluster A tasks could be combined with Cluster B if the time and resources were available. This method is only one example of how a commander or trainer could utilize the information given in Section I.

TAB A: SUSTAINMENT CLUSTER A

80%: 1-2 times/month
70%: every 3 months
60%: every 4 months

DRAGON

071-317-0000

DRAGON Range Card

FIRST AID

081-831-1008

First Aid for Heat Injuries

LAW

071-318-2202(A)
071-331-0805

LAW Engage Targets
LAW Armor Weak Points

M60

071-312-3007
071-312-3006

M60 Range Card
M60 Field Zero

MINES

051-192-1021

Visually Locate Mines

MORTARS

071-321-3904
071-321-1602
071-321-3901
071-322-4204

Mortar Lay for D&E
Mortar FO Corrections on M16
Mortar Put Into Action
4.2 Lay for D&E

NBC

081-831-1013
031-503-1001
031-502-1004
081-831-1012

First Aid for Blood-Agent
Maintain M17
Recognize/React to CB
Recognize/React to Blister Agent

TAC COMMO

113-571-1016

Send Radio Message

TOW

071-316-2516
071-316-2501

TOW Limitations
TOW Maintenance

TAB B: SUSTAINMENT CLUSTER B

80%: every 2 months
70%: every 3 months
60%: every 6 months

FIRST AID

081-831-1001	Mouth-to-Mouth Resuscitation
081-831-1005	Treat for Shock
081-831-1009	First Aid for Frost Bite
081-831-1026	Open Chest Wound

ITT

071-331-0803	ITT - SALUTE
071-326-0600	Use Visual Signals
071-326-0501	Move as Member of FT

LAW

071-318-2203	LAW Immediate Action
--------------	----------------------

M16A1

071-311-2001	BRM M16A1 Maintenance
071-311-2003	M16A1 Load, Reduce, Clear
071-311-2007A	Shooting Fundamentals
071-311-2006	M16A1 Limited Fire Techniques

M60

071-312-3005	M60 Operator Maintenance
071-312-3009	M60 10M Zero

M203

071-311-2101	M203 Operator Maintenance
--------------	---------------------------

MINES

051-192-1022	Probe for Mines
051-192-1012	Disarm M16A1 Mine
061-192-1018	Disarm M21 Mine

MORTARS

071-321-3910	Mortar Reciprocally Lay
071-321-1601	Mortar Prepare M16 Plot Board

TAB B: SUSTAINMENT CLUSTER B (Continued)

NBC

081-831-1011	First Aid for Nerve-Agent
031-503-1002	Put on M-17
031-503-1003	Store M17
031-503-1010	Replace Filters on M17
081-503-1015	Put on Protect Cloth

TOW

071-316-2502	TOW Self Test
--------------	---------------

TAB C: SUSTAINMENT CLUSTER C

80%: every 3 months
70%: every 9 months
60%: every 12 months

CAL .50

071-313-3451
071-313-3455

Caliber .50 Operator Maintenance
Caliber .50 Time and Headspace

DRAGON

071-317-3303

DRAGON Engageable

FIRST AID

081-831-1006
081-831-1007

Splint
First Aid for Burns

ITT

051-191-1361
051-191-1003(1363)
071-326-0502
071-326-0513
071-331-0801
071-331-0802
071-326-5703

Camouflage Self and Equipment
Camouflage Defensive Positions
React to Direct Fire
Select Temporary Fight Positions
Use Challenge/Password
Process PWs
Construct Fight Positions

LAW

071-318-2201

LAW Prepare for Fire

M16A1

071-311-2002

M16A1 Magazine Load and Unload

M60

071-312-3001
Unknown

M60 Load, Reduce, Clear
M60 Traverse and Search

M203

071-311-2102
071-311-2104
071-326-0512

M203 Load, Unload, Clear
M203 Engage Targets
Estimate Range

TAB C: SUSTAINMENT CLUSTER C (Continued)

MINES

051-192-1002	Install M16A1 Mine
051-192-1008	Install M21 Mine
051-192-1502	Install/Recover M18A1 Mine

MORTARS

071-321-3902	Boresight 81MM
071-321-3907	81MM Remove Misfire
071-321-3911	81MM Traverse and Search
071-321-4050	Mortar Engage Without FOC
071-322-4201	Mount 4.2 Inch

NBC

051-192-1007A	Decontaminate Skin
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TOW

071-316-0814	TOW Identify Vehicles
071-329-1002	Grid Coordinates
071-316-2504	TOW Immediate Action

TAB D: SUSTAINMENT CLUSTER D

80%: every 6 months
70%: every 12 months
60%: every 18 months

CAL. 50

071-313-3453

Caliber .50 Load, Reduce, Clear

FIRST AID

081-831-1016

Pressure Dressing

M16A1

071-315-2003

Place AN/PVS-4 in Operation

M203

071-311-2103

M203 Zero

071-311-2103(A)

M203 Firing Positions

MAP

071-329-1001

ID Terrain Features

071-329-1003

Read an Azimuth

NBC

031-503-1006

Give NBC Alarm

TOW

071-316-2521

TOW Range Card

071-316-2503

TOW Load, Arm, Unload

TAC COMMO

113-600-2009

Install/Operate TA-1

TAB E: SUSTAINMENT CLUSTER E

80%: every 9 months
70%: every 18 months
60%: every 24 months

DRAGON

071-317-3301	DRAGON Inspection
071-317-3304	DRAGON Firing Positions
071-316-2500	TOW Assembly

FIRST AID

081-831-1003	Clear Throat
081-831-1017	Tourniquet
081-831-1025	Abdominal Wound

MORTARS

071-321-3905	81MM Prepare for Fire
--------------	-----------------------

ITT

071-326-0503	React to Obstacles
071-326-0510	React to Indirect Fire
071-326-0511	React to Flares
071-331-0852	Clear Fields of Fire

TAC COMMO

113-587-1001	Install PRC-77
113-600-1012	Install TA-312

TAB F: SUSTAINMENT CLUSTER F*

DRAGON

071-317-3308	Emergency Destruction DRAGON
071-317-3302	DRAGON Prepare for Fire
071-317-3306	DRAGON Immediate Action

HAND GRENADES

071-325-4401	Hand Grenade Safety Checks
071-325-4401(A)	Secure Hand Grenade to Ammo Pouch
071-325-4405	Hand Grenade ID and Employment

MORTARS

071-321-3909	Mortar Refer and Realign
071-322-4208	4.2 Refer and Realign
071-322-4209	4.2 Reciprocal Lay
071-321-3903	81MM Safety Checks
071-322-4203	4.2 Inch Safety Checks

NBC

031-503-1014	Use M8 Paper
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TAC COMMO

113-587-2001	Operate PRC-77
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TOW

071-316-2505	TOW Engageable
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*The tasks listed under Sustainment Cluster F are generally remembered for periods in excess of three years and should not require any more refresher training than that obtained through normal soldiering experience.

SECTION II

This section is an organized listing of all the tasks in a particular activity, together with their associated retention intervals necessary to maintain the given performance levels (see Figure 2).

TASK NUMBER	TASK NAME	SUSTAINMENT FREQUENCIES		
		80%	70%	60%
<u>First Aid</u>				
081-831-1005	Treat for Shock	2 mo	3 mo	6 mo
081-831-1006	Splint a Fracture	3 mo	9 mo	12 mo
081-831-1008	First Aid for Heat Injury	2-4 wks	3 mo	4 mo
081-831-1009	First Aid for Frost Bite	2 mo	3 mo	6 mo

FIGURE 2

This section is designed to allow the commander or trainer to look at all the tasks associated with a particular activity or weapons system at one time. The task name and SM number are in the left column. The number under the associated 80%, 70%, and 60% columns represents the time period that a particular task can go without additional training and still remain above the listed performance level. At the end of that time, the tasks need to be retrained or refreshed to ensure the soldiers' average performance remains above the indicated level. For example: to maintain SPLINT A FRACTURE above an 80% proficiency level, your unit should have refresher training once every 3 months; whereas, if 60% proficiency is selected, training need only be scheduled once every 12 months.

If the unit were going to perform a certain collective task as part of a future training mission, the commander could easily see what individual tasks were involved, check to see how long it has been since they were last trained or

practiced, and determine approximately how proficient his unit would be at performing those tasks. The tasks could then be prioritized, based on which need reinforcement most and place his sustainment training emphasis on those tasks.

Example: Your unit is going to be required to emplace a hasty protective minefield as part of its defensive collective training mission. In order to accomplish this mission, your soldiers will need to be able to perform several individual tasks relating to mine warfare, including such tasks as installing and recovering M16A1, M18A1, and M21 mines. Once you have identified the individual tasks necessary to perform the mission, you can look them up in Section II of this guide and determine how often they need to be practiced to maintain 80% and above proficiency. Compare this with the length of time since they were last trained. The tasks that have the greatest difference between these two lengths of time should be trained first, and any tasks that have been trained more recently than the given retention interval could be saved for last, or if necessary because of a lack of time, be deleted from the preparatory training altogether.

This is one example of how the information in this section could be put to use. It is by no means the only way you can utilize the information.

TASK NUMBER	TASK NAME	SUSTAINMENT FREQUENCIES		
		80%	70%	60%
<u>First Aid</u>				
081-831-1008	First Aid for Heat Injuries	2-4 wks	3 mo	4 mo
081-831-1001	Mouth-to-Mouth Resuscitation	2 mo	3 mo	6 mo
081-831-1005	Treat for Shock	2 mo	3 mo	6 mo
081-831-1009	First Aid for Frost Bite	2 mo	3 mo	6 mo
081-831-1026	Open Chest Wound	2 mo	3 mo	6 mo
081-831-1006	Splint Broken arm or Leg	3 mo	9 mo	12 mo
081-831-1007	First Aid for Burns	3 mo	9 mo	12 mo
081-831-1016	Apply a Pressure Dressing	6 mo	12 mo	18 mo
081-831-1003	Clear Throat	9 mo	18 mo	24 mo
081-831-1017	Apply Tourniquet	9 mo	18 mo	24 mo
081-831-1025	Abdominal Wound	9 mo	18 mo	24 mo
<u>MBC</u>				
081-831-1013	First Aid for Blood Agent	2-4 wks	3 mo	4 mo
031-503-1001	Maintain M17 Mask	2-4 wks	3 mo	4 mo
031-502-1004	Recognize/React to CB Hazards	2-4 wks	3 mo	4 mo
081-831-1012	Recognize/React to Blister Agent	2-4 wks	3 mo	4 mo
081-831-1011	First Aid for Nerve-Agent	2 mo	3 mo	6 mo
031-503-1002	Put on M-17 Mask	2 mo	3 mo	6 mo
031-503-1003	Store M17 Mask	2 mo	3 mo	6 mo
031-503-1010	Replace Filters in Mask	2 mo	3 mo	6 mo
081-503-1015	Put on Protective Clothing	2 mo	3 mo	6 mo
051-192-1007A	Decontaminate Skin	3 mo	9 mo	12 mo
031-503-1006	Give NBC Alarm	6 mo	12 mo	18 mo
031-503-1014	Use M8 Detector Paper	(Approximately 2 years)		
<u>M16A1 Rifle</u>				
071-311-2001	BRM M16A1 Maintenance	2 mo	3 mo	6 mo
071-311-2003	M16A1 Load, Reduce, Clear	2 mo	3 mo	6 mo
071-311-2007A	Shooting Fundamentals	2 mo	3 mo	6 mo
071-311-2006	M16A1 Limited Visibility Techniques	2 mo	3 mo	6 mo
071-311-2002	Load, Unload M16A1 Magazine	3 mo	9 mo	12 mo
071-315-2003	Place AN/PVS-4 into Operation	6 mo	12 mo	18 mo
<u>Mine Warfare</u>				
051-192-1021	Visually Locate Mines	2-4 wks	3 mo	4 mo
051-192-1022	Probe for Mines	2 mo	3 mo	6 mo
051-192-1012	Disarm M16A1 Mine	2 mo	3 mo	6 mo
061-192-1018	Disarm M21 Mine	2 mo	3 mo	6 mo
051-192-1002	Install M16A1 Mine	3 mo	9 mo	12 mo
051-192-1008	Install M21 Mine	3 mo	9 mo	12 mo
051-192-1502	Install/Recover M18A1 Mine	3 mo	9 mo	12 mo

TASK NUMBER	TASK NAME	SUSTAINMENT FREQUENCIES		
		80%	70%	60%
<u>Light Anti-Tank Weapon (LAW)</u>				
071-318-2202A	Engage Targets with LAW	2-4 wks	3 mo	4 mo
071-331-0805	Identify Armor Weak Points	2-4 wks	3 mo	4 mo
071-318-2203	Immediate Action-LAW	2 mo	3 mo	6 mo
071-318-2201	Prepare LAW for Firing	3 mo	9 mo	12 mo
<u>M60 Machinegun</u>				
071-312-3006	Field Zero M60 MG	2-4 wks	3 mo	4 mo
071-312-3007	M60 Range Card	2-4 wks	3 mo	4 mo
071-312-3005	M60 Operator Maintenance	2 mo	3 mo	6 mo
071-312-3009	Zero M60 (10m Range)	2 mo	3 mo	6 mo
071-312-3001	Load, Reduce, Clear M60	3 mo	9 mo	12 mo
071-312-0000	Traverse and Search with M60	3 mo	9 mo	12 mo
<u>Individual Tactical Training (ITT)</u>				
071-331-0803	Collect/Report Information (SALUTE)	2 mo	3 mo	6 mo
071-326-0600	Use Visual Signals	2 mo	3 mo	6 mo
071-326-0501	Move as Fire Team Member	2 mo	3 mo	6 mo
051-191-1361	Camouflage Self and Equipment	3 mo	9 mo	12 mo
051-191-1363	Camouflage Defensive Position	3 mo	9 mo	12 mo
071-326-0502	React to Direct Fire	3 mo	9 mo	12 mo
071-326-0513	Select Temporary Fight Positions	3 mo	9 mo	12 mo
071-331-0801	Use Challenge and Password	3 mo	9 mo	12 mo
071-331-0802	Process PWs	3 mo	9 mo	12 mo
071-326-5703	Construct Fighting Positions	3 mo	9 mo	12 mo
071-326-0503	React to Obstacles	9 mo	18 mo	24 mo
071-326-0510	React to Indirect Fire	9 mo	18 mo	24 mo
071-326-0511	React to Flares	9 mo	18 mo	24 mo
071-331-0852	Clear Fields of Fire	9 mo	18 mo	24 mo
<u>Map Reading</u>				
071-329-1002	Determine Grid Coordinates	3 mo	9 mo	12 mo
071-329-1001	ID Terrain Features	6 mo	12 mo	18 mo
071-329-1003	Read an Azimuth	6 mo	12 mo	18 mo
<u>M203 Grenade Launcher</u>				
071-311-2101	Operator Maintenance M203	2 mo	3 mo	6 mo
071-311-2102	Load, Unload, Clear M203	3 mo	9 mo	12 mo
071-311-2104	Engage Targets with M203	3 mo	9 mo	12 mo
071-326-0512	Estimate Range	3 mo	9 mo	12 mo
071-311-2103	Zero the M203	6 mo	12 mo	18 mo
071-311-2103A	M203 Firing Positions	6 mo	12 mo	18 mo

TASK NUMBER	TASK NAME	SUSTAINMENT FREQUENCIES		
		80%	70%	60%

Tactical Communications

113-571-1016	Send Radio Message	2-4 wks	3 mo	4 mo
113-600-2009	Install/Operate TA-1 Telephone	6 mo	12 mo	18 mo
113-587-1001	Install PRC-77 Radio	9 mo	18 mo	24 mo
113-600-1012	Install TA-312 Telephone	9 mo	18 mo	24 mo
113-587-2001	Operate PRC-77 Radio	(Approximately 2 years)		

Hand Grenades

071-325-4401	Hand Grenade Safety Checks	(Approximately 2 years)		
071-325-4401A	Secure Hand Grenade to Ammo Pouch	(Approximately 2 years)		
071-325-4405	Identify and Employ Hand Grenade	(Approximately 2 years)		

Dragon

071-317-0000	DRAGON Range Card	2-4 wks	3 mo	4 mo
071-317-3303	Target Engageability with Dragon	3 mo	9 mo	12 mo
071-317-3301	DRAGON Inspection	9 mo	18 mo	24 mo
071-317-3304	DRAGON Firing Positions	9 mo	18 mo	24 mo
071-317-3302	Prepare Dragon for Firing	(Approximately 2 years)		
071-317-3306	Immediate Action on Dragon	(Approximately 2 years)		
071-317-3308	Emergency Destruction of Dragon	(Approximately 2 years)		

Caliber .50 Machinegun

071-313-3451	Operator Maintenance, Cal .50	3 mo	9 mo	12 mo
071-313-3455	Set Timing and Headspace for Cal .50	3 mo	9 mo	12 mo
071-313-3453	Load, Reduce, Clear Cal .50	6 mo	12 mo	17 mo

Mortars

071-321-3904	Lay Mortar for D&E	2-4 wks	3 mo	4 mo
071-321-1602	FO Corrections on M16 Board	2-4 wks	3 mo	4 mo
071-321-3901	Place 81mm Mortar into Action	2-4 wks	3 mo	4 mo
071-322-4204	Lay 4.2 Mortar for D&E	2-4 wks	3 mo	4 mo
071-321-3910	Reciprocally Lay Mortars	2 mo	3 mo	6 mo
071-321-1601	Prepare M16 Plotting Board	2 mo	3 mo	6 mo
071-321-3902	Boresight 81mm Mortar	3 mo	9 mo	12 mo
071-321-3907	Remove 81mm Mortar Misfire	3 mo	9 mo	12 mo
071-321-3911	Traverse and Search 81mm Mortar	3 mo	9 mo	12 mo
071-321-4050	Engage Targets Without FOC	3 mo	9 mo	12 mo
071-322-4201	Mount 4.2 Inch Mortar	3 mo	9 mo	12 mo
071-321-3905	Prepare 81mm Mortar for Firing	9 mo	18 mo	24 mo
071-321-3909	Refer and Realign 81mm Mortar	(Approximately 2 years)		
071-322-4208	Refer and Realign 4.2 Mortar	(Approximately 2 years)		
071-322-4209	Reciprocal Lay 4.2 Mortar	(Approximately 2 years)		
071-321-3903	81mm Safety Checks	(Approximately 2 years)		
071-322-4203	4.2 Mortar Safety Checks	(Approximately 2 years)		

TASK NUMBER	TASK NAME	SUSTAINMENT FREQUENCIES		
		80%	70%	60%
<u>TOW</u>				
071-316-2516	TOW Firing Limitations	2-4 wks	3 mo	4 mo
071-316-2501	TOW Maintenance	2-4 wks	3 mo	4 mo
071-316-2502	TOW System Self-Test	2 mo	3 mo	6 mo
071-316-0814	Identify Armored Vehicles	3 mo	9 mo	12 mo
071-316-2504	Perform Immediate Action Procedures	3 mo	9 mo	12 mo
071-316-2521	TOW Range Card	6 mo	12 m	18 mo
071-316-2503	Load, Arm, Unload TOW	6 mo	12 mo	18 mo
071-316-2505	Determine Engageability with TOW	(Approximately 2 years)		

SECTION III

PLANNING THE SUSTAINMENT TRAINING SESSION

Soldiers reporting to your unit from the training base will have the least experience and will require the most time for their first Sustainment Training Exercise. This section describes those soldiers because they will require the most effort. More experienced soldiers will require less time and effort on your part.

Table 1 shows the number of times that new soldiers will generally require to get a perfect GO on the average task. The training time required can be based on these soldiers, as they should be your slowest.

TABLE 1: NUMBER OF TASK TRIALS REQUIRED OF NEW TRAINEES
TO SCORE A PERFECT GO ON THE AVERAGE TASK

Trial Number	Percent Soldiers GO
1	33
2	45
3	15
4 or more	7

This means that out of 100 soldiers, 33 will be GO on the first attempt; 45 will need 2 tries to get a perfect GO; 15 will need 3 tries, and the rest will take 4 or more attempts to get a perfect GO.

When planning individual skill sustainment training, you should estimate the time required to perform each task one time, then use Table 1 to estimate the total time required for the group. You can reduce total training time by using either multiple training stations or by using soldiers who have scored a GO as trainers.

HOW TO CONDUCT SUSTAINMENT TRAINING

Sustainment training is easy to conduct and excellent results are readily achieved. The training should be conducted with a small group, no more than 10 soldiers per trainer, and preferably, no more than 6, or in fireteam or squad-sized elements.

The following general instructions apply to all skill sustainment training. Task specific instructions are found in the Soldiers Manual under the Standards Section, or in the performance measure, for the task in question.

GENERAL INSTRUCTIONS

Training Site

When you are conducting small group training, the training site should be arranged so that all the group members can observe the training.

It is not necessary to simulate battlefield conditions in sustainment training because the tasks will be practiced under these conditions in the collective training exercises. Remember, all you are trying to achieve at this time is task accuracy, performance to Soldiers Manual standard. Attaining mastery will be accomplished in the collective mode. Training can be conducted in the day room, the company area, or nearby open areas as appropriate. This will minimize your preparation requirements for sustainment training.

Specific Training Procedures

1. Have one of the soldiers perform the task following the performance measures in the Soldiers Manual. If the soldier makes an error on a task step, immediately stop him, correct the error, and have the soldier proceed.
2. Any task step that is skipped is an error and should be corrected.

3. When the soldier has completed the task, have each soldier perform the task in random rotation until they have performed the task correctly.
4. Score each soldier on every performance measure of the task. When the soldier makes an error, score a NO GO and tell the soldier what he should have done. Be specific; correct only the performance error. Do not try to train the soldier on the whole task. It takes less time to let the soldier show you what he can do than it takes to talk him through the tasks.
5. Continue training each soldier until he has scored a perfect GO on the task. When the soldier has scored a GO on the task, he is ready for collective training, or training with more difficult or more realistic conditions.

NOTE: Some performance measures use the terms "inspects" or "checks." These are not always observable actions that can be scored. Instruct the soldiers to clearly state what they are inspecting or checking for, and what action they would use if the check or inspection fails.

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